

NASA Contribution to ESA's Rosetta Mission

1. 3 instruments plus a significant portion of the electronics package for another (MIRO, ALICE, IES, and ROSINA DFMS Electronics)
2. 3 Principal Investigators, Interdisciplinary Scientist
3. 40 Co-Investigators and researchers
4. Deep Space Network 70 meter and 34 meter support
5. Scheduling software for science observations
6. Multi-mission Ephemeris Support tool
7. Comet modeling
8. Shadow navigation for flight dynamics verification
9. Outreach and media products
10. Support for ESA's Amateur Ground Observing Campaign

NASA Hardware Contribution

ALICE (an ultraviolet imaging spectrometer) will map the comet's nucleus for pockets of both dust and ice – Alan Stern, SWRI

MIRO (Microwave Instrument for the Rosetta Orbiter) will remotely examine the vicinity for signs of water coming off the nucleus and will construct temperature maps – Sam Gulkis, JPL

IES (Ion and Electron Sensor) will look for examples of direct interaction between the solar wind and the nucleus – James Burch, SWRI

ROSINA (Rosetta Orbiter Spectrometer for Ion and Neutral Analysis) will identify gases sublimating from the comet. NASA is providing ROSINA's DFMS (Double Focusing Mass Spectrometer) Electronics – Stephen Fuselier, SWRI

<http://rosetta.jpl.nasa.gov>

NASA Participation in the Rosetta Payload

Orbiter Teams

1. ALICE - UV spectrometer
2. CONSERT – tomography/radio sounding
3. COSIMA – chemistry
4. GIADA – dust analysis
5. IES - ion and electron sensor
6. ICA – plasma analyzer
7. MAG – magnetometer
8. MIDAS – atomic force microscope (dust particles)
9. MIP – magnetic impedance probe
10. MIRO - microwave spectrometer / radiometer
11. LAP – Langmuir probe
12. OSIRIS – camera
13. ROSINA – mass spectrometer
14. RSI – radio science
15. VIRTIS – IR spectrometer

Lander Teams

16. APXS – X-ray spectrometer
17. CIVA -lander visible - IR camera (omnidirectional)
18. COSAC – lander mass spectrometer
19. MODULUS – gas analyzer
20. MUPUS – probe
21. ROLIS – lander descent camera
22. ROMAP – lander magnetometer/material magnetism
23. SESAME – seismic data
24. CONSERT (2) – tomography/radio sounding
25. SD2 – drill
26. PTOLEMY – gas analyzer

Legend:

NASA hardware contribution

NASA investigator participation